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mapped packet frame to a station on a channel.

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14. (Amended) A packet-based voice communication method in a mobile communication system having a layered protocol architecture, comprising the steps of:
converting voice data generated by a packet voice application to packet data of a variable length only upon activation of voice traffic;
mapping said packet data of a variable length to at least one packet frame of a fixed length by a W-PVCP (Wireless Packet Voice Convergence Protocol) layer;
passing said mapped packet frame to a MAC (Medium Access Control) layer; and
transmitting the mapped packet frame on a channel by a physical layer.

REMARKS

Claims 1-20 are pending in the application. It is gratefully acknowledged that Claim 5 has been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. The Examiner has rejected Claims 1, 2, 9, 12, 14, 15 and 18 under 35 U.S.C. §103(a) as being unpatentable over Hulyalkar et al. (U.S. Patent 6,198,728) in view of Rumer et al. (U.S. Patent 5,883, 893). The Examiner has rejected Claims 3, 4, 6-8, 10, 11, 13, 16, 17, 19 and 20 under 35 U.S.C. §103(a) as being unpatentable over Hulyalkar et al. in view of Rumer et al., and further in view of Kubler et al. (U.S. Patent 6,389,010).

In addition, the drawings were objected to by the Draftsperson as not having uniformly thick lines, numbers and letters. A clean set of drawings is included herewith. Withdrawal of the objections to the drawings is respectfully requested.

With respect the rejections of independent Claims 1 and 14, the Examiner states that the combination of Hulyalkar et al. and Rumer et al. teaches all of the elements contained in the claims. Hulyalkar et al. discloses a medium access control protocol for wireless ATM where excess bandwidth is distributed based on the size of a buffer or priority. Rumer et al. discloses an ATM voice transport protocol where a voice layer

segments and reassembles voice data. Claims 1 and 14 have been amended to recite that the mapping or converting of the voice data occurs *only* upon activation of voice traffic. If there is no voice traffic, any assigned voice channels are released, and, if there is voice traffic, channel resources are allocated. As neither Hulyalkar et al. nor Rumer et al. teach or disclose this element, either alone or in combination, withdrawal of the rejections of Claims 1 and 14 is respectfully requested.

Furthermore, regarding Claims 1, 9, 12, 14 and 18, the Examiner states that Rumer et al. discloses the elements recited in the claims relating to the mapping of voice packets *due to the activation of voice packets*. Applicants respectfully disagree. Rumer et al. segments data if a transmission unit of the physical layer is limited. The mapping of the present claims occurs only upon the existence of voice data.

Also, Rumer et al. is based on circuit switching where a circuit is maintained until one connection ends. The claims of the present invention recite that the system is a packet switching system where a channel is assigned only when voice data exists; the channel is released during a silence interval.

Additionally, with respect to independent Claims 9, 12 and 18, it is respectfully submitted that the Examiner failed to address several elements recited in the claims. Regarding Claims 9 and 18, the Examiner did not address, and the cited references do not disclose, those parts of Claims 9 and 18 that state that the W-PVCP layer calculates a synchronization delay by utilizing a time stamp included in a first voice packet received from the MAC layer, buffers the subsequent voice packets for a predetermined time period based on the synchronization delay, and transmits the buffered voice packets to a packet voice application. Regarding Claim 12, the Examiner did not address, and the cited references do not disclose, that part of Claim 12 that states releasing the assigned packet voice channel when there is no voice data to be transmitted for a predetermined time period, and entering an inactive state, and re-entering the packet voice channel active state from the inactive state when a packet voice channel is assigned to transmit newly generated voice data. Based on at least the forgoing, withdrawal of the rejections of Claims 9, 12 and 18 is respectfully requested.

Independent Claims 1, 9, 12, 14 and 18 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 2-8, 10, 11, 13, 15-17, 19 and 20, these are likewise believed to be allowable by virtue of their dependence on their respective independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 2-8, 10, 11, 13, 15-17, 19 and 20 is respectfully requested.

Accordingly, all of the claims pending in the Application, namely, Claims 1-20, are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicant's attorney at the number given below.

Respectfully submitted,



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Requirements as per C.F.R. § 1.121 (c)(1)(ii)

Rewritten claim(s) marked up to show all the changes relative to the previous version of claim(s):

1. (Amended) A packet-based voice communication device in a mobile communication system having a layered protocol architecture, comprising:

a W-PVCP (Wireless Packet Voice Convergence Protocol) layer for mapping a voice packet of variable length generated only upon [due to] activation of voice traffic onto a packet frame of a fixed length; and

a MAC (Medium Access Control) layer and a physical layer for transmitting the mapped packet frame to a station on a channel.

14. (Amended) A packet-based voice communication method in a mobile communication system having a layered protocol architecture, comprising the steps of:

converting voice data generated by a packet voice application to packet data of a variable length only upon activation of voice traffic;

mapping said packet data of a variable length to at least one packet frame of a fixed length by a W-PVCP (Wireless Packet Voice Convergence Protocol) layer;

passing said mapped packet frame to a MAC (Medium Access Control) layer; and

transmitting the mapped packet frame on a channel by a physical layer.